May 15-21, 2004

<P>The Terra spacecraft is operating nominally. All five instruments are in science mode.</P>

<P>Meetings were held to refine the plan for the proposed test to help isolate the K-band
dropouts on TDRS West and eliminate the ground station as the cause. WSC has approved a Transient Response Test plan for TDRS-F5 including the conduct of dropout measurements via
an antenna system outside from the White Sands infrastructure.</P>

<P>The test involves simulating the TDRS-F5 dropout signature using the WSC EET, transmitting the RF to TDRS-F5 and observing the system response on the SGL downlink. The rising edge on the F5 dropout signature has a characteristic overshoot and undershoot
before settling, suggestive of control loop action. One potential source of the signature
was the Automatic Level Control (ALC) circuit within the return processor. This test is designed to isolate potential sources of the dropout to spacecraft components "in front" of the ALC circuit or those from the ALC circuit "back" to the SGL TWTA. In addition, the
test procedure may provide a useful tool to diagnose the proper operation of the spacecraft
ALC circuit across the fleet.</P>

<P>After thorough analysis of COMM and C&DH subsystem telemetry, the Terra Flight Operations
Team (FOT) does not believe that the dropouts are being caused on-board the Terra spacecraft.
The FOT is correlating spacecraft Master Oscillator (MO) frequencies to the dropout times to
evaluate if MO frequency shifts could potentially be contributing to the problem.</P>

<P>There will be no MODIS lunar calibration roll maneuvers for the months of May and June due
to the fact that the lunar view would require a roll in excess of the maximum value of 20
degrees allowed by the mission rules.</P>

<P>The next Delta-V maneuver to compensate for atmospheric drag will be conducted in June.</P>